

UNITED STATES DEPARTMENT OF COMMERCE  
IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Barry T. Lee et al.	)	Examiner:	Not yet assigned
Serial No.:	Not yet assigned	)	Group Art:	Not yet assigned
Filing Date:	Not yet assigned	)		
For:	Audio Signal Phase	)		
	Detection System and	)		
	Method	)		

#2  
J. Taylor  
2/21/00

1c841 U.S. PTO  
09/703237  
10/31/00

INFORMATION DISCLOSURE STATEMENT

Assistant Commissioner for Patents  
Washington, D. C. 20231

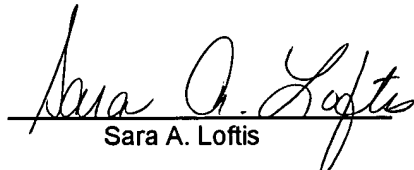
Dear Sir:

Pursuant to 37 CFR §§ 1.97 and 1.98, please consider the following references.

A copy of each reference is enclosed.

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Sara A. Loftis

1. McTaggart, U.S. Patent No. 4,908,868, filed 21 Feb 1989. The polarity tester determines whether two speakers are in phase with each other. It uses two microphones to receive the outputs of two speakers. The two outputs are added together and then compared to the output from one of the speakers. If the two speakers are in phase, the sum should be nearly twice the output of a single speaker. If the two speakers are out of phase, the two speaker outputs should cancel and the sum should be near zero and substantially less than the output of a single speaker. Applicant finds no teaching of marking a portion of a wave and then testing to determine whether the marked portion has a proper polarity.

2. Seki, U.S. Patent No. 3,840,817, filed 4 Oct 1973. Two signals which are to be compared are sent to both sum and difference circuits and the outputs of the sum and difference circuits are compared. If the two signals are in phase the sum circuit will produce the greater output. If the two signals are out of phase, the difference circuit will produce the greater output. Applicant finds no teaching of marking a portion of a wave and then testing to determine whether the marked portion has a proper polarity.

3. Duquesne, U.S. Patent No. 3,548,321, filed 3 May 1968. One of two signals is phase shifted by 90 degrees. Phase detectors then compare the two original signals and compare the phase shifted signal to the non-shifted signal. The results of these comparisons are used to develop a signal that varies linearly with the phase difference of the two original input signals. Applicant finds no teaching of marking a portion of a wave and then testing to determine whether the marked portion has a proper polarity.

4. Fink, U.S. Patent No. 3,206,550, filed 6 September 1960. A circuit detects whether or not two signals carry stereo signal information by detecting whether or not a certain signal characteristic such as phase modulation is present which indicates the transmission of a stereophonic signal. Applicant finds no teaching of marking a portion of a wave and then testing to determine whether the marked portion has a proper polarity.

5. Fink, U.S. Patent No. 3,067,297, filed 26 February 1960. A test signal in the form of an asymmetrical square wave is provided to a system with a known polarity, such as the short pulse being positive and the long pulse being negative. Electrical connection is then made to a desired point in a circuit and the polarity determined. If the long pulse is found to be positive there has been phase reversal. Applicant finds no teaching of marking a portion of a wave and then testing to determine whether the marked portion has a proper polarity.

6. Bauer et al., U.S. Patent 3,148,287, filed 9 March 1961. Two stereophonic signals are both added and subtracted to produce both the sum and difference. If the difference signal becomes greater than the sum signal, phase reversal is assumed and one of the signals is reversed in phase to maintain the two signals in proper relative phase. Applicant finds no teaching of marking a portion of a wave and then testing to determine whether the marked portion has a proper polarity.

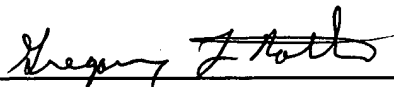
7. Bradford, U.S. Patent 4,691,358, filed 14 April 1986. A first output signal is generated by summing two stereophonic signals and rectifying the sum. A second output signal is generated by rectifying the two stereophonic signals, inverting one of the stereophonic signals, and summing the inverted and noninverted rectified signals. The two output signals are then used to drive different axes of an oscilloscope, with the angle, length and breadth of the display pattern indicating the relationship of the original stereophonic signals. Applicant finds no teaching of marking a portion of a wave and then testing to determine whether the marked portion has a proper polarity.

8. Horn et al., U.S. Patent 4,648,113, filed 11 September 1985. A vectorscope is used to monitor two stereophonic signals. The two signals are used modulate the amplitude of two phase quadrature sinusoidal waves at a subcarrier frequency, so as to synthesize the chrominance portion of a composite video signal. In addition, the two signals are added and the sum is applied to the input of the vectorscope. The phase relationships of the two signals is then determined from the vectorscope. Applicant finds no teaching of marking a portion of a wave and then testing to determine whether the marked portion has a proper polarity.

9. Mc Taggart, U.S. Patent 5,319,714, filed September 23, 1992. A positive impulse is provided to an audio system and the responsive output signal is monitored. If the first pulse of the output signal that exceeds a certain threshold is positive, a green light emitting diode is illuminated. If the first pulse of the output signal that exceeds the certain threshold is negative, a red light emitting diode is illuminated. Applicant finds no teaching of marking a portion of a wave and then testing to determine whether the marked portion has a proper polarity.

Respectfully submitted:

Dated: October 31, 2000

By   
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			Application Number	Not yet assigned
			Filing Date	Not yet assigned
			First Named Inventor	Barry Thomas Lee
			Group Art Unit	
			Examiner Name	
Sheet	1	of 1	Attorney Docket Number	P-31221

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Examiner Signature		Date Considered	
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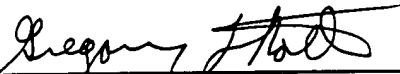
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Respectfully submitted:

Dated: October 31, 2000

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